

**ABSTRACT**

A pump system includes an implantable pump including a motor having a rotor and a stator. The stator includes a plurality of stator windings, and a motor controller is coupled to the motor to energize the windings so as cause the rotor to turn. A time-based  
5 system parameter of the pump is sampled and the system parameter is analyzed to calculate a suction probability index that provides an indication of the imminence of ventricle collapse.